

MISCELLANEOUS NOTES AND RECORDS OF LOCAL LEPIDOPTERA, AND DESCRIPTION OF TWO NEW ABERRATIONS.

BY FRANK E. WATSON,

NEW YORK, N. Y.

BUTTERFLY COLLECTING IN THE VICINITY OF NEW YORK CITY FOR THE SEASON OF 1920.

The exceedingly poor butterfly collecting in the vicinity of New York City this past season may perhaps be laid to the abnormal weather conditions, particularly to the greatly reduced amount of spring-like weather through March, April and May. Following a long cold winter, March was warm and spring-like from the middle to the end of the month. It also had a remarkable number of clear days for that month in this vicinity. April gave us just five nice warm spring-like days. May was better with nineteen warm days, and being steadily warm after the 14th. The weather, during June, was normal. July and August were exceedingly hot, humid and rainy. When not actually raining it was damp and cloudy with rain threatening, so that there were few sunny days during these two months.

Cornus mass, a European Dogwood, produced its first flowers on April 1st in St. Nicholas Park, New York City. The same shrubs last year flowered for the first time on March 18, *i.e.*, two weeks earlier. With the butterflies, at any rate, the season has apparently been about two weeks late, not becoming normal until about August 1st.

In Van Cortlandt Park, New York City, commencing with August 1 and lasting through the month and to about September 7, about sixteen of our commonest butterflies were very abundant and many of the less common species were observed. Prior to August 1st there was almost no collecting, while after September 7 the collecting became very poor again.

At Lake Mashipacong, Sussex Co., N. J., July 3 to 5, Mr. G. C. Hall and the writer enjoyed the hospitality of Mr. and Mrs. C. L. Robinson. Thirty-one species and four varieties were observed on the three days, among which were *Melitaea harrisii* Scudder, quite

common but many specimens poor, and *Euphyes bimacula* (Grote and Robinson), rather common, all males, just coming out on the 5th.

At Jamesburg, Monmouth Co., N. J., August 29, with Mr. C. L. Lewis, thirty-two species and one variety were noted. This is my best butterfly list (for one day) of the season. Worthy of special mention are—a single fresh male of *Poanes zabulon* (Boisduval and Le Conte); *Megistias fusca* (Grote and Robinson), two individuals; *Pamphila leonardus* (Harris), about fifteen to twenty seen, very difficult to capture; *Catia otho egeremet* (Scudder), about six old specimens captured (late record).

Eurymus philodice (Godart) has been, as it usually is, very common but its dichromatic female form *pallidice* Scudder was rather scarce.

Correction.—The note on page 343 in "Miscellaneous Collecting Notes for 1919"¹ should read, *E. philodice* is commoner than it was during 1917 but is by no means in its normal abundance.

Danaus archippus (Fabricius) has been, like last season,¹ nearly absent, only five individuals (listed below) being seen by me or brought to my attention and no eggs or larvæ were found.

One specimen at Parsippany, Morris Co., N. J., June 27 (G. C. Hall).

One old female near Van Cortlandt Park, New York City, August 3 (H. Mills).

One individual, Van Cortlandt Park, August 18.

One specimen, Mastic Beach, Long Island, New York, September 20 (J. T. Nichols).

One specimen near The American Museum of Natural History, October 11.

I have always considered this species one of our commonest local butterflies and I cannot recall a season, those of the present and preceding years excepted, when it was not plentiful. This being a migratory species, perhaps some catastrophe occurred to the migrating swarms, such as has been recorded for migrations of birds and certain mammals.

Vanessa virginiensis (Drury): one individual taken at Garden City, Long Island, New York, on the morning of November 21 by J.

¹ Miscellaneous Collecting Notes for 1919. Watson, F. E., JN. N. Y. ENT. SOC., 1919, XXVII, p. 343.

T. Nichols. It was sluggish when found on the top of a dead dry weed.

Vanessa cardui (Linné) has been with us again this season but was scarce.

Basilarchia archippus (Cramer): correction. On p. 343, l. 6, in "Miscellaneous Collecting Notes for 1919,"¹ *D. archippus* should read *B. archippus*.

***Pieris napi virginienensis* Edwards.**

Following the Barnes and McDunnough Check List of Lepidoptera, 1917, this butterfly is here given as a race of *Pieris napi* (Linné). I am inclined to think that this may be a distinct species, for among other things, it seems to have but one generation a year, *napi oleracea* (Harris), the more northern insect, having two.

The name *virginienensis* has not heretofore appeared in any of our local lists, specimens recorded as *napi* (Linné) or *oleracea* (Harris) are probably of this form. As this is a very rare butterfly in the vicinity of New York City, records from the following specimens, which I have examined, may be of value.

Good figures of *virginienensis* are given by W. H. Edwards in his Butterflies of North America, Vol. I, 1871, Pl. IX, Figs. 5-8.

One female, in fair condition, Paterson, Passaic County, New Jersey, May 6 (J. A. Grossbeck); in the collection of The American Museum of Natural History. This specimen is recorded as "*P. oleracea* Bdv." on p. 417 of Report New Jersey State Museum—Insects of New Jersey (1909), 1910, by J. B. Smith. It was probably taken in the vicinity of Garrett Rock (Watchung Mountains).

One female, in poor condition, Watchung Mountains, New Jersey, May 6, 1900 (W. D. Kearfott); in the collection of The American Museum of Natural History. A pencil label attached to the specimen says "Garrett Rock," so that this individual was probably captured in the same general region where the preceding and following butterflies were taken.

One male, in good condition, Watchung Mountains, between Paterson and Great Notch, Passaic County, New Jersey, April 30, 1905 (F. E. Watson); in author's collection.

One old male, Blairstown, Warren County, New Jersey, June 2, 1920 (A. B. Klots); in the collection of A. B. Klots.

Argynnis aphrodite alcestis Edwards.

On page 45 of the Bulletin of the Brooklyn Entomological Society, 1913, Vol. VIII, is recorded the capture of a specimen of *alcestis* Edwards in Van Cortlandt Park, New York City. As two races cannot occur in the same region, this specimen should be reduced in rank to an aberration of *A. aphrodite aphrodite* (Fabricius). While it is practically identical in appearance with *alcestis*, its blood relationship is with *aphrodite* and *alcestis* should not be considered one of our local entities.

Brenthis bellona ab. *kleenei*, new aberration.

This aberration differs from typical *bellona* (Fabricius), in having the entire area of both wings black from the base to just inside the extra-mesial series of round black spots. On the primaries there is a distinct subquadrate spot of fulvous near the center, and an obsolete line (scarcely discernible) of the same color at the end, of the cell. There is a dusting of fulvous scales at the base, extending along the costa to nearly the middle of the wing and along the inner margin to the fulvous terminal area. The extra-mesial series of spots is greatly reduced, the upper three being obsolete, the two between veins 2 and 4 are strongest. The geminate submarginal band is practically obsolete. The outer series is reduced to a slight dusting of black scales on the veins and the inner row to a series of four faint rounded spots between veins 2 and 6. This series of spots is also closer to the extra-mesial series than in normal individuals. Secondaries with an obsolete (scarcely discernible) fulvous line at the end of the cell. The spots of the extra-mesial series are all present but smaller than normal. The submarginal series of elongate spots is also present but reduced and somewhat suffused, and together with the marginal series of T shaped spots (which are also suffused) forms an indistinct blackish marginal band. This band merges with the black basal area at the apex. Fringes of both wings blacker than normal. Underside of primaries similar to upper but with the addition of a small distinct fulvous spot at the base, and an obsolete line before the distal end, of the cell. There is also a faint fulvous streak below vein 2 near the base. The deep cinnamonous marginal border is interrupted by a yellowish apical patch and obsolete patches of the same color between veins 3 and 5. Underside of secondaries with the area, which was black above, chestnut, except as follows. A yellow bar along the precostal vein. A large lilacinous patch at base of cellule 7-8, acuminate distad along vein 8 and terminating near the center of the wing. This patch encloses near its base a round chestnut spot. A mesial series of four yellow annuli, the first between veins 1a and 1, second and third between 1 and 2, and fourth at distal end of cell between 3 and 5, the middle discocellular forming its outer edge. This, the fourth,

annulus is less well defined than the others and it has a horizontal lilac streak on its lower edge extending distad to the outer edge of the chestnut area. The chestnut area is also interrupted by blackish patches near the bases of cellules 2-3, 3-4, and 4-5, the last being obsolete. The brown distal area is overlaid with iridescent violet scales. The brown submarginal crescents and extra-mesical annuli are present but more obscure than in normal individuals. Fringes of both wings blacker than normal.

Expanse—43.5 mm.

This is a black *bellona*, with a fulvous terminal band on the primaries about 4 mm. wide and a subterminal band of the same color on the secondaries, about 2.5 mm. wide.

This beautiful aberration was captured by Mr. S. Kleene, after whom it is named, at West Hartford, Connecticut, May 3, 1921.

Holotype, female, in the collection of The American Museum of Natural History; donated by Mr. S. Kleene.

Aglais antiopa (Linné).

A patch of eggs was found by me on the underside of a willow leaf at Tappan, Rockland County, New York, Aug. 4, 1918. They covered nearly the basal third of the leaf extending to the edges and down to the petiole. It is somewhat unusual to find eggs of this species on a leaf as they generally encircle a terminal twig.

Poanes hobomok ab. *pallida*, new aberration.

This aberration differs from typical *hobomok* (Harris) in having the usual dark brown borders and markings of all wings, above and below, light gray and the normal bright tawny areas and spots on both wings above and on primaries beneath pale dull tawny. Secondaries beneath with the band and subbasal spot light dull yellow. Fringes of both wings above and below grayish.

Expanse—31 mm.

Holotype, male, near Dunwoodie, Westchester County, New York, May 21, 1921 (F. E. Watson); in the collection of The American Museum of Natural History.

BOOK REVIEW.

APPLIED ENTOMOLOGY. AN INTRODUCTORY TEXT BOOK OF INSECTS IN THEIR RELATIONS TO MAN. By H. T. FERNALD, PH.D., pp. i-xiv, 1-386, 388 figs. McGraw-Hill Book Company, Inc., New York, 1921.